

GIS

Greene

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Contract for  
**Digital Mapping System**  
for Greene County, Indiana  
October, 2001

The Greene County Board of Commissioners (the "Client") wishes to Implement a Digital Mapping System to be used by Public Safety and various other offices within the county. The following defines the scope of products and services to be offered by WTH Technology, Inc (the "Company") and the compensation to be paid by the Client.

1. **Summary:** The following is a summary of this proposal. Each item is described in more detail below.
  - a) The Company will develop a digital map of the Client's county that will include USGS, DOQQ (digital ortho-photography), topography, roads, waterways, landmarks, addresses, bridges, soils and parcel data.
  - b) The Company will provide and install onto 5 computers all of the necessary software required to view, query, and edit the digital map. The mapping software will also be interfaced with the Client's existing 911 system.
  - c) The Company will provide technical support for licensed users of the software, synchronize data between users, and provide an off-site backup on a regular basis. Upgrades to the software will be automatically installed onto the Client's computers as they become available.
  - d) The cost of these products and services will be \$89,800 plus \$500 per month customer service fee for 5 users.
2. **Initial Map and Data Development:** The finished Digital Mapping System will consist of several data sets. All of the following data sets are included. All layers are positioned on the map to line up with each other and with the world.
  - a) Topography: A background raster image showing 5 or 10 foot interval contour lines will be included as a layer on the map. This information will come from scanned USGS Quad maps.
  - b) Aerial Photography: 1997-98 digital ortho photos will be included as a background raster image on the map. These photos will come from the USGS and have a 1 meter per pixel resolution and have been orthogonally rectified to remove relief displacement so that ground features are displayed in their true ground position.
  - c) Section Lines: Section lines are added based on USGS Quad Maps. This data will be moved into position and fit to visible land references on the photography such as fence lines, roads etc.
  - d) Roads: The centerline of all roads, streets, highways, and railroads will be identified on the map. The locations of these features will be determined by the aerial photography and the names will come from city and county maps provided by the Client. It is recommended that the Client also provide the Company with a

copy of their Master Street Address Guide, or MSAG, so that all road name spellings can be checked to exactly match those used in the Client's E911 system.

- e) Streams, Lakes, and Rivers: All Major waterways and most minor waterways that are visible in the digital aerial photography will be drawn on the map and named according to maps provided by the Client.
- f) Landmarks and Boundaries: Any towns, place names, and points of interest marked on maps provided by the Client will be identified on the map. This will also include any city limits, township limits, commissioner districts, fire department boundaries, ambulance boundaries, and other limited features as agreed upon by the Client and the Company. All boundary lines will be drawn in their general locations as indicated by maps provided by the Client and then corrected to align with obvious landmarks visible in the photography such as fence lines, roads, etc.
- g) Addresses: Individual addresses will be pinpointed on the map, where it is known. The Client will provide the Company with the address information from the Rural Electric Membership Corporation, in an electronic format. The Company was already provided a sample of the data from the REMC. Some addresses from the REMC data will not have the actual physical address location, since REMC uses billing addresses. In these cases the Client will need to verify what the exact house address is and provide this to the Company. In any incorporated areas where exact address locations are not known, address ranges will be marked on the streets so that an approximate location can be given whenever inquiring on an address.
- h) Bridge Inventory: The location of each county bridge will be pinpointed on the map based on map(s) provided by the Client or other sources. Each bridge will be linked to a data sheet where detailed specifications, maintenance, and notes can be recorded. The Company will populate the database with information provided directly from INDOT. Any additional information from the Client such as photographs and sketches of each bridge will also be included in the database if provided by the Client.
- i) Road Segmentation: A detailed layer that overlays the road layer and includes the state inventory number, to and from road intersection names, segment length etc... These road segment features will be a continuous segment that will change at noted changes based on the inventory map. If an existing road does not have a state number, a new number will be added that will be clearly different than the state number.
- j) Property Lines: The Company will convert the Client's existing digital plat maps, include any blowup pages and subdivision maps and tile them all together into one continuous map. The Company will fit and adjust the digitized plat into its visual location on the finished map, by rubber sheeting, using visual control points on the aerial photography. The Company will correct the location of each plat page to make them line up with the Client's ortho-rectified photography and with each other. The finished map will show all township and range lines, section lines, platted subdivisions boundaries, subdivision lot lines, and parcel lines. The Company will modify the Client's existing parcel numbering system to assure

compliance to the State of Indiana's parcel naming system. (i.e. 28-00-00-000-000.000-000)

- k) Soil Classifications: The Company will convert the Client's existing digital soil maps and align each digitized plat into its visual location on the finished map using visual control points on the aerial photography. Each polygon area will be identified with a soil type so that the software will have enough information to automatically do an agricultural land assessment.
- l) Land Use Designations: The Company will convert the Client's existing digital land use data. Land use designations will be converted using the Client's existing land use types.

3. **Description of Software**: The Software to be provided with this contract is called "Think Map". A compiled Microsoft Access database and a runtime version of Microsoft Access is also included for each licensed user. This software and its components provide all the user interface necessary to view, query, and manipulate the map and its data.

- a) The following is a summary of the functionality included in the software:
  - The software provides various zooming and panning tools to make it possible to easily view any area of the map at any scale.
  - Locate any named objects or location on the map by selecting them from an alphabetical index or by pressing the Map button from any data sheet.
  - Users can query the database for a set of records matching any criteria based on any combination of field values and then show the results on the map.
  - Point and click on any object on the map to view the data linked to that object (i.e. bridge, road, address, etc)
  - Measure any distance or area.
  - Layers can be turned on and off independently to customize the appearance of the map at each workstation.
  - Import or Export data from and to other mapping applications.
  - E911 interface to provide automatic pop-up map with each E911 call.
  - Editing tools are included to assist in adding or changing any information.
  - A parcel assessment tool automatically determines the soil types and land types for a parcel and calculates the acreage of each portion of the parcel. This requires a parcel, soil and land use layer on the map.
- b) **Hardware Requirements**. The software can be installed and ran on any computer provided by the Client that meets the following minimum requirements:
  - Windows 95, 98, or NT.
  - Microsoft Access 2000 is used for the bridge inventory and road segmentation databases. Access 2000 is not included in this software. Microsoft Access 97 or 95 will not work in place of Access 2000.
  - 64 Megabytes of memory (128 megs or higher recommended for computers that will use the parcel assessment tool).
  - 3 Gigabytes of available hard disk space.
  - 15" SVGA color monitor capable of displaying 16 bit color at 800 X 600 resolution or better. (21" recommended)

- Keyboard and mouse
- Modem and/or Internet Access. (required for data synchronization, backup, and support)

#### **4. Installation and Coaching:**

- a) Use of Software: The software will be licensed for use on 5 individual work stations located in the county and used for county government purposes only. A list of these initial 5 users must be provided to the Company prior to installation. The software may be installed on a network of computers but "use" of the software is limited to those users agreed upon prior to installation.
- b) Setup and Coaching: When the project is completed the Company will install the software and data files into each department's existing computers and setup each workstation with a strategy of sharing data with the other departments (see Customer Service section below). Note that no computer hardware is included with the purchase of this system. Company will provide training for the first year based on a "coaching" concept. Coaches are made available to the users (via the phone or in person) on demand for any purpose utilizing the Think Map software.
- c) 911 Interface: The Company will interface the mapping software with the Client's E911 system so that a map will automatically be displayed with each 911 call showing the location of the caller. To do this, the Client's 911 provider must make available a local connection point that provides an ALI stream of data with each 911 call. The Client's 911 provider may have additional charges for their part of this interface.

#### **5. Customer Service:**

- a) Toll Free Telephone Support: As part of this customer service agreement, business hours phone support will be provided for one representative from each department. Phone support will include answering questions regarding the use of the software and making changes to the system configuration to adapt to the Client's changing needs.
- b) Software Upgrades: Any enhancements made to the Think Map system during the life of the maintenance agreement will be automatically uploaded to the Client's computer(s) as they become available.
- c) Data Synchronization: This service will make it possible for departments not connected to a central network (i.e. remote users) to share data with other departments. Remote users who have internet access on their computer will be able to automatically dial into the Company's system and send or receive map updates. With this in place, any user responsible for maintaining one or more layers can upload their changes to a remote server and all other users will be able to download these layers so that they are up to date each morning.
- d) Pre-Contract Technical Council: The Company will assist the Client in any pre-contract technical decision that needs to be made regarding digital data interfacing with the Think Map GIS system. The Company's wide range of experience will aid the Client in making efficient decisions for the Client and the Think Map product.

- e) Off Site Data Back-up: The Company will maintain a "back-up" of the Client's Map Data off-site of the county. In case of computer data loss, this data back-up will be provided to the county at no charge.
  - f) Coaching: Company will provide training for the first year based on a "coaching" concept. Coaches are made available to the users (via the phone or in person) on demand for any purpose utilizing the Think Map software.
  - g) Additional map development: This contract provides software for use on 5 computers. The Company will provide licenses to the Client for additional users for a cost of \$750 per computer. This price is guaranteed for the 12 months following the signing of this contract.
6. **Price and Payment:** The above products and services will be provided for a price of \$89,800 plus \$500 Monthly customer service.

Phase I:	\$52,200	911 Department
Phase II:	\$7,600	Highway Department
Phase III:	<u>\$30,000</u>	<u>Parcel and Soil conversion</u>
	\$89,800	Total project cost

- a) Phase I: \$52,200 Payment. To be delivered 60 days after the signing of this contract. This includes the delivery of the software and base map including digital aerial photography, topography, landmarks, sections, roads, railroads, water, addresses, 911 interface and political boundaries for the entire County. This payment is due upon receipt of the WTH invoice.

#### OPTIONAL ADDITIONAL SERVICES:

- b) Phase II: \$7,600 Payment. Upon approval by the Board of Commissioners, Phase II will be delivered 30 days following receipt of a notification to proceed from the Commissioners. This includes the delivery of road segmentation and bridges. This payment is due upon receipt of the WTH invoice.
- c) Phase III: \$30,000 Payment. Upon approval by the Board of Commissioners, Phase III will be delivered 90 days after receipt of notice to proceed from the Commissioners. This includes the delivery of all of the parcel, soils and land use data for the entire county. This payment is due upon receipt of the WTH invoice.
- d) Customer Service: The monthly customer service fee is \$ 500.00 per month for 5 users, to be payable quarterly, semi-annually or annually, at the option of the Board of Commissioners. This covers all services described in section 5 above. The Customer Service Fee will begin thirty (30) days after the final delivery of the selected plan. Additional software user licenses can be purchased for \$750 each.

IN WITNESS WHEREOF, the parties have executed this Agreement as of this 2ND day of October, 2001.

Company:  
WTH Technology, Inc.

Client:  
Greene County  
Board of Commissioners

By: Rex E. Jones  
Rex E. Jones

Title: President

By: [Signature]

By: Warren Barthel

By: [Signature]

Attest: Sue McIsaac, Auditor



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